REMARKS

The non-final Office Action was issued on pending claims 1-3. Claims 1-3 stand rejected. In this Response, no claims have been amended, added or cancelled. Thus, claims 1-3 are pending in the application.

Applicant invites the Examiner to call Applicant's Representative to discuss any issues with this application.

Claim Rejections – 35 USC §103

At pages 2 and 3 of the Office Action, claims 1-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shrontz et al. (US 5,165,699). Applicant respectfully disagrees.

Shrontz et al. describes and shows in Fig. 1 a rotatable shaft 12 having a ceramic coating 42 and a sealing surface 40. The sealing surface 40 of the shaft 12 is in contact with lip seals 30 and relatively slides with respect to the lip seals 30. However, Shrontz et al. does not describe or suggest that the sealing surface 40 is defined to have a surface energy of 50 dyne/cm or less. Applicant's claim 1 is distinguished from Shrontz et al. because claim 1 calls for *"the sliding contact surface is defined to have a surface energy of 50 dyne/cm or less."* This claimed feature is an important feature of Applicant's invention in order to obtain the sliding contact seal structure which is excellent in sealing performance and durability and in which a shaft member and a seal member are neither worn nor damaged for a long period of time.

The Shrontz et al. sealing surface 40 and ceramic coating 42 of the shaft 12 may include chromium oxide film. The Office Action asserts the surface energy of the Shrontz et al. chromium oxide ceramic coating 42 is generally known to be within Applicant's claimed range as evidenced by White (US 5,979,314). Contrary to assertions in the Office Action, the outer surface of the metering roller 27 of White is made of epoxy resin, not chromium oxide film. The White metering roller 27 has a chromium oxide ceramic coating as a middle layer and the surface thereof has the epoxy resin coating. See White column 4, lines 40-54.

In addition, White defines the surface energy of the metering roller as 31 dyne/cm so that fountain solution will bead-up on the surface of the roller, which allows the printing ink to adhere to the unwetted surface of the roller for printing, i.e. the ink does not flow on the surface

of the metering roller. See White column 4, lines 30-39. Also, the White low elastic form roller 15 contacting the metering roller 27 under pressure turns together with the metering roller 27. Therefore, the rotating contact of the White form roller and metering roller is not the sliding contact surface as in Shrontz et al. or claim 1 of the present application. Furthermore, White uses the epoxy sealer so that ink will adhere to the surface of the roller for printing. If the ink doesn't adhere to the roller surface, proper printing does not occur. Shrontz et al. is concerned with forming a seal between the lip seals 30 and the sealing surface 40 and is not concerned with printing ink adhering to the sealing surface 40. Applicant respectfully submits the White roller contact structure and surface energy are significantly different from Shrontz et al. and Applicant's invention.

Briefly summarizing, Shrontz et al. does not describe or suggest the sealing surface 40 of the ceramic coating 42 be defined to have a surface energy of 50 dyne/cm or less as claimed by Applicant. The White metering roller 27 has an epoxy resin surface and not chromium oxide, White describes the epoxy resin as having a surface energy of 31 dyne/cm, and White describes the chromium oxide middle coating as having a surface energy of 60-70 dyne/cm. Furthermore, the surface energy of White is significantly different from the surface energy defined in claim 1 of the present application in its object, use and further, in its technical field.

Therefore, Shrontz et al. does not disclose or suggest all of the features of Applicant's claim 1 and there is no motivation or suggestion in White for modifying Shrontz et al. to achieve Applicant's claimed invention. One having ordinary skill in the art would not find it obvious to define the surface energy of the sliding contact surface of the shaft member that comes into contact with a seal member as claimed in claim 1 of Applicant's invention.

Applicant respectfully submits claim 1 is allowable. Dependent claims 2 and 3 are allowable at least for the reasons that claim 1 is allowable.

Thus, Applicant submits that the §103 rejections should be withdrawn.

CONCLUSION

For the foregoing reasons, Applicant submits that the patent application is in condition for allowance and requests a Notice of Allowance be issued.

Respectfully submitted,

EVEREST INTELLECTUAL PROPERTY LAW GROUP

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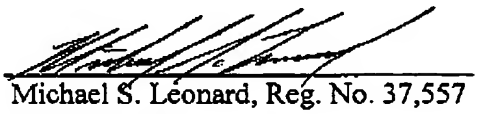
BY 

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